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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,157	12/14/2001	Anja Knuppel	Beiersdorf 756 -KGB/BSL	1726

7590

08/27/2003

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EXAMINER

WELLS, LAUREN Q

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 08/27/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/017,157

Applicant(s)

KNUPPEL ET AL.

Examiner

Lauren Q Wells

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-- The MAILING DATE of this c mmunicati n appears on the cover sheet with th correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

Claims 1, 3-15 are pending. The Amendment filed 7/8/03, Paper No. 6, cancelled claim 2, amended claims 1, 6, 8, 9, 10, and added claims 11-15.

Applicant's arguments to the art rejections in the previous Office Action with respect to claims 1, 3-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments and amendment to the claims are sufficient-in-part to overcome the 35 USC 112 rejections in the previous Office Action.

Applicant's amendment to the claims is sufficient to overcome the 35 USC 101 rejections in the previous Office Action.

The initialed copy of the declaration is persuasive to overcome the objection to the declaration in the previous Office Action.

Applicant's certified priority document has been received.

112 Rejection Maintained

The rejection of claims 5 and 9-10 under 35 U.S.C. 112 is MAINTAINED for the reasons set forth in the Office Action mailed 1/9/03, Paper No. 4, and those found below.

over →

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(i) The rejection of claim 5 is maintained. Application argues, "Hydrodispersion are o/w formulations that are stabilized by thickeners". This argument is not persuasive. The Examiner respectfully points out that hydrodispersions and o/w emulsions are distinct formulations, see for example US Patent No. 5,725,844. Thus, this claim is confusing, as it is not understood how an o/w emulsion can be a hydrodispersion.

(ii) The rejection of the term "derivatives" in claims 9-10 is maintained. Applicant has provided no arguments against this rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 6-7, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderle et al. (2002/0028875) in view of Stein et al. (5,399,563) and in view of the Handbook of Cosmetic Science and Technology.

The instant invention is directed to a method of protecting the skin from exposure to light comprising topically applying to the skin an o/w formulation comprising a water dispersible polyurethane composition and at least one UV filtering compound.

Anderle et al. teach plasticized waterborne polyurethane dispersions and manufacturing processes. Taught are personal care compositions comprising the waterborne polyurethane dispersions and sunscreens. Exemplified is a sunscreen composition comprising water-soluble sunscreen and 7.5% of the polyurethane dispersion. The polyurethane dispersion is the product

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of the process comprising reacting at least one polyisocyanate having an average of about two or more isocyanate groups and at least one active hydrogen containing compound to form a prepolymer, and dispersing the prepolymer in water and chain extending prepolymer by reaction with at least one of water, inorganic or organic polyamine having an average of about 2 or more primary and/or secondary amine groups, or combinations thereof. While not explicitly stated, it is respectfully pointed out that it is well established in the cosmetic-sunscreen art that sunscreen formulations for personal care application are applied to the skin. The reference lacks an oil-in-water emulsion and a microemulsion. See [0068]-[0084]; [0261]-[0262].

Stein et al. exemplify oil-in-water sunscreens as preferred sunscreen formulations. Col. 10, line 50.

The Handbook of Cosmetic Science and Technology teaches emulsions as promoting cosmetic elegance and allows otherwise impractical combinations of ingredients, i.e. oil soluble and water soluble materials, to be used in the same product. Emulsification is taught as offering great formulation flexibility, enabling modification of such parameters as feel, viscosity and appearance, to be made relatively easily. In addition, emulsions facilitate the 'dosing' of active ingredients onto the skin in an aesthetically pleasing and consistent manner. Emulsions are additionally very cost effective and offer a viable means of producing a commercially successful product. See page 95. The Handbook additionally teaches that the rate of phase separation can be reduced by reducing the dispersed phase particle size. Table 4 on page 112 of the Handbook teaches microemulsions as transparent. See pages 95, 112, 115, and 117.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Stein et al. and the Handbook of Cosmetic Science and

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Technology to teach the sunscreen composition of Anderle in the form of an oil-in-water emulsion because of the expectation of achieving a sunscreen formulation that allows a combination of oil soluble and water soluble active materials and promotes cosmetic elegance.

Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the oil-in-water emulsion in the form of a microemulsion, as taught by the Handbook of Cosmetic Science and Technology, because of the expectation of achieving greater product stability and transparency, which is aesthetically pleasing to the user.

Claims 8-10, 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderle et al. in view of Stein et al. and the Handbook of Cosmetic Science and Technology as applied to claims 1, 3-4, 6-7, 11 above, and further in view of Koch et al (6,258,963).

Anderle et al., Stein et al., and the Handbook of Cosmetic Science and Technology, are applied as discussed above. The references lack preferred sunscreens.

Anderle et al., Stein et al., and the Handbook of Cosmetic and Science Technology is applied as discussed above. The reference lacks preferred sunscreens.

Koch et al. teach cosmetic compositions comprising UV absorbers. Aminobenzoic acid derivatives, salicylate derivatives, cinnamate derivatives, phenylene-bis-benzimidazol-tetrasulphonic acid disodium salt, 2,2'-methylene-bis-(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol), 2,4-bis-((4-(2-ethyl-hexyloxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-(1,3,5)-traizine and others are taught as traditional and interchangeable UV absorbers. See Col. 3, line 39-Col. 4, line 59.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the 2,4-bis-((4-(2-ethyl-hexyloxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-

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(1,3,5)-traizine or the 2,2'-methylene-bis-(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol) of Koch et al. to the composition of Anderle et al. because a) Anderle et al. teach aminobenzoic acid derivatives, salicylate derivatives, and/or cinnamate derivatives as sunscreens in his compositions, and Koch teach 2,4-bis-((4-(2-ethyl-hexyloxy)-2-hydroxy)-phenyl)-6-(4-methoxyphenyl)-(1,3,5)-traizine and 2,2'-methylene-bis-(6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol), as interchangeable and combinable with aminobenzoic acid derivatives, salicylate derivatives, and/or cinnamate derivatives.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderle et al. in view of Stein et al. and the Handbook of Cosmetic Science and Technology as applied to claims 1, 3-4, 6-7, 11 above, and further in view of Gers-Barlag et al. (5,725,844).

Anderle et al., Stein et al., and the Handbook of Cosmetic Science and Technology are applied as discussed above. The reference lacks hydrodispersions.

Gers-Barlag et al. teach sunscreen formulations. O/W emulsions and hydrodispersions are taught as interchangeable cosmetic formulations for sunscreens. Hydrodispersions are taught as preferable forms because they do not impart irritation to the skin of a user as a result of surfactants, as hydrodispersions do not contain surfactants. See Col. 2, line 15-Col. 3, line 32.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the oil-in-water emulsions of the combined references in the form of hydrodispersions because Gers-Barlag et al. teach these formulations as interchangeable and because of the expectation of achieving a product that is less irritating to the skin of the user.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on M-F (7-4:30), with alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (703)305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw


SREENI PADMANABHAN
PRIMARY EXAMINER 8/20/05